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Date: October 15, 1998

Mr. Tim Reisch
Atlantic Division, Naval Facilities Engineering Command
Environmental Quality Division
Code: 1822
Building N 26, Room 54
1510 Gilbert Street
Norfolk, Va 23511-2699

Re: USN St. Julien Creek Annex, Va.
Background Determination
Review of the Navy's draft *RI/FS Work Plan Addendum*

Dear Mr. Reisch:

The U.S. Environmental Protection Agency (EPA) has preliminarily reviewed the Navy's draft *Remedial Investigation Work Plan Addendum* for establishing naturally occurring inorganic background concentrations in media located at the St. Julien Creek Annex (SJCA), and we offer the following comments:

1.0 GENERAL COMMENTS

1. The revised draft does not address the following issues which were included in the original review comments:

(a) Why complete analysis for all TAL/TCL parameters plus ordnance and ordnance byproducts are not included in the background assessment. If volatiles, semi-volatiles, pesticides, PCBs, Dioxins, or explosive compounds are detected in an alleged background sample, then the sample is not useable as a background sampling location, since the sample location has been disturbed by human activity.

(b) If sampling will be conducted in any wetland areas and if so, whether sediment or soil samples will be used as a background reference.

2. The background document indicates that composite samples from 0-2 feet will be collected to evaluate potential exposures to burrowing organisms as suggested by NOAA. Although this seems like a reasonable approach, NOAA does not recollect making this recommendation and encourages coordination with the BTAG on this issue. Surface soil samples are proposed to be collected from 0-3 inches. Normally BTAG requests a 0-6" interval for surface soil collection, and 0-3 inches for sediment. Six inch to two foot interval may also be needed, since the data sub- surface soil will be collected for the ERA.

2.0 **SPECIFIC COMMENTS**

1. **Section 1.2, Surface and Subsurface Sampling , Page 4, last paragraph.** The text states that COPCs included VOCs, SVOCs, pesticides and PCBs, Dioxin and inorganics. However, the background assessment will included analyses for only TAL Inorganics and TCL Pesticides. The text does not include rationale for not including all detected analyte groups in the background assessment. Rationale for not including all detected analyte groups in the background assessment should be included in this section.
2. **Figure 1-2.** The legend for Figure 1-2 does not define "N", "F", and "C" as "Native Soil", "Fill Material" and "Composite Sample", respectively. The legend does also not identify " " as a proposed sampling location. These definitions should be added to the legend for Figure 1-2.
3. **Table 2-1, Number of Soil Samples.** The third column of Table 2-1 presents the number of samples to be collected for each laboratory parameter. However, the number of samples presented in Table 2-1 does not seem to agree with the number of soil samples described in Section 1.2, page 4, of the text. The text indicates that 10 native soil locations and 10 fill material locations will be collected for both surface and subsurface soils for a total of 40 soil samples. The text also states that all surface and subsurface soils will be analyzed for TAL Inorganics, TCL Pesticides, TOC, soil pH, grain size and soil classification by ASTM D2487. The apparent discrepancies between the text and Table 2-1 regarding the number of soil samples to be collected for each laboratory parameter should be resolved and corrections made to the text and table as appropriate.
4. **Table 2-1, Laboratory Parameters for Soil Samples.** Table 2-1 does not include soil classification by ASTM D2487 as a laboratory parameter for soil samples. Since this analysis is specified in Section 2.1 of the text, soil classification by ASTM D2487 should be added to the laboratory parameter list for soil samples in Table 2-1.
5. **Section 3.1, Surface Water and Sediment Sampling, Page 10, 5th paragraph.** The text states that COPCs in surface water identified during the RI included an

SVOC and inorganics. The discussion further indicates that the background assessment for surface waters will include TAL metals, rather than TAL inorganics. Since the COPCs identified in the RI included inorganics, the background assessment should include TAL inorganics, rather than only TAL metals.

6. **Table 2-2, Laboratory Parameters for Surface Waters.** Table 2-2 does not include the field analyses to be conducted as laboratory parameter for surface water samples. Since these analyses are specified in Section 3.1 of the text, the field parameters should be added to the laboratory parameter list for surface water samples in Table 2-2.
7. **Table 2-1, Laboratory Parameters for Sediment Samples.** Table 2-1 does not include soil pH, grain size, or soil classification by ASTM D2487 as laboratory parameters for sediment samples. Since these analyses are specified in Section 3.1 of the text, soil pH, grain size and soil classification by ASTM D2487 should be added to the laboratory parameter list for sediment samples in Table 2-1.
8. **Table 2-2, Laboratory Parameters for Groundwater Samples.** Table 2-2 does not include the field analyses to be conducted as laboratory parameter for groundwater samples. Since these analyses are specified in Section 3.1 of the text, the field parameters should be added to the laboratory parameter list for groundwater samples in Table 2-2.
9. **Section 2.0., Field QC Procedures.** Information regarding holding times, sample containers and appropriate preservation should be included in this section. The above information could be presented in a tabular format for ease of review.
10. **Table 3-1, Analytical Procedures.** Table 3-1 does not include soil classification by ASTM D2487. Since analysis will be performed on soil and sediment samples for the background assessment, it should be included in Table 3-1.

SECTION 3.0, TYPOGRAPHICAL ERRORS

1. **Section 3.1, Surface Water and Sediment Sampling, Page 12.** The first of line on this page should read "...All sampling areas...", rather than "...All smpling areas...".

This concludes EPA's review of the Navy's draft *Remedial Investigation Work Plan Addendum* for establishing naturally occurring inorganic background concentrations in media, located at the SJCA. If you have any questions regarding the above, please feel free to call me at (215) 814-3357,

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Thomson". The signature is fluid and cursive, with the first name "Robert" and last name "Thomson" clearly distinguishable.

Robert Thomson, P.E, AEP
Federal Facilities (3HS50)

cc: Sharon Wilcox (VDEQ, Richmond)
Barbara Okorn (USEPA, 3HS41)